

[W68412] A30G753396

Diesel Engine

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		JR0220198	JR0205599	JR0178422
Resample at the next service interval to monitor. (Customer Sample Comment: W68412)	Sample Date		Client Info		08 Jul 2024	14 Mar 2024	30 Aug 2023
	Machine Age	hrs	Client Info		1894	1368	565
	Oil Age	hrs	Client Info		526	803	565
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	10	16	24
	Chromium	ppm	ASTM D5185m	>20	0	0	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	1	<1
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	<1	0	2
	Aluminum	ppm	ASTM D5185m	>20	5	2	4
	Lead	ppm	ASTM D5185m	>40	0	0	0
	Copper	ppm	ASTM D5185m	>330	12	80	▲ 500
	Tin	ppm	ASTM D5185m	>15	<1	0	3
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	8	10	54
	Potassium	ppm	ASTM D5185m	>20	3	0	2
There is no indication of any contamination in the oil.	Fuel		WC Method		<1.0	<1.0	0.6
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.6	9.1
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.6	18.7
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	3	4
	Boron	ppm	ASTM D5185m		204	168	88
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		246	212	101
	Manganese	ppm	ASTM D5185m		<1	<1	4
	Magnesium	ppm	ASTM D5185m		799	700	72
	Calcium	ppm	ASTM D5185m		1444	1522	2294
	Phosphorus	ppm	ASTM D5185m		955	912	1078
	Zinc	ppm	ASTM D5185m		1141	1045	1256
	Sulfur	ppm	ASTM D5185m		3819	3312	4628
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	17.2	14.5
	Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	5.7	5.9
	Vier C 10000	. 01	AOTA DATE	4 - 4	10.0	10.5	

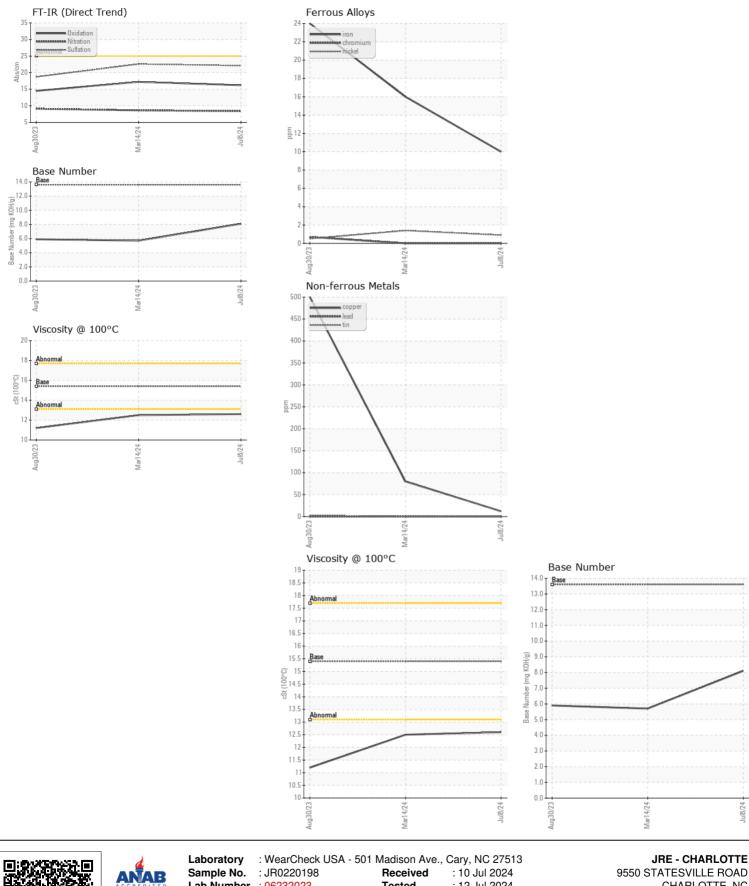
Visc @ 100°C cSt

ASTM D445 15.4

12.5

11.2

12.6



Sample No. : JR0220198 Received 9550 STATESVILLE ROAD : 10 Jul 2024 Lab Number : 06232023 Tested : 12 Jul 2024 CHARLOTTE, NC Unique Number : 11115516 Diagnosed : 12 Jul 2024 - Sean Felton US 28269 Test Package : CONST (Additional Tests: TBN) Contact: CHARLOTTE SHOP Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. myoung@jamesriverequipment.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (704)597-0211 回勁 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (704)596-6198

Submitted By: Mike Young - CHARLOTTE SHOP Page 2 of 2